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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/810,646	03/03/1997	JEFFREY JACOBSEN	KPN96-03A2	9183

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EXAMINER

PIZIALI, JEFFREY J

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 07/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	08/810,646	JACOBSEN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jeff Piziali	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 1 March 2006 & 25 April 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 1997 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed (on 25 April 2006) in this application after final rejection (mailed 25 November 2005). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action (mailed 25 November 2005) has been withdrawn pursuant to 37 CFR 1.114. Applicants' *'Amendment After Final Rejection Under 37 C.F.R. § 1.116'* filed on 1 March 2006 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Wilska et al* (United Kingdom - 2,289,555 A) in view of *Takahara et al* (US 5,436,635 A).

Regarding claim 1, *Wilska* discloses a docking system for a telephone [Fig. 3; 17] comprising: a hand held housing [Fig. 1; 1] (see Page 5, Paragraph 3) having a plurality of control elements [Fig. 3; 10 & 11] (see Page 4, Paragraph 3) and a connection port [Fig. 3; 8] (see Page 5, Paragraph 3) that electrically connects a control processing circuit [Fig. 3; 2] (see

Page 3, Paragraph 9) within the housing to a wireless telephone [Fig. 3; 17] that docks with the housing, the control processing circuit receiving image data from the telephone, and generating display data based on image data (see Page 5, Paragraph 3); a liquid crystal display [Fig. 1; 9] mounted to the housing (see Page 4, Paragraph 2), the display receiving the display data from the control processing circuit, and presenting the display data as an image (see Page 3, Paragraph 9). Wilska does not expressly disclose an active matrix LCD, a light source, or a power management circuit.

However, Takahara does disclose an active matrix liquid crystal display [Fig. 21, 214] (see Column 33, Lines 22-28), a light source [Fig. 21, 211] mounted in a display housing [Fig. 21, 201] that illuminates the image presented on the liquid crystal display (see Column 28, Lines 30-49), and a power management circuit [Fig. 22, 223] that lowers the power consumption of a control processing circuit [Fig. 22, the combined circuitry of 211, 214 & 221-225 and the 'variable resistor'] after the image is illuminated until display data [Fig. 22, 'Video Signal'] for the next image from the control processing circuit is ready to be presented to the matrix display, the power consumption of the control processing circuit being lowered between sequentially generated display data, the power management circuit arranged for receiving control signals [i.e. pulse width variable signals from the 'variable resistor'] for lowering the power consumption, the control signals resulting from signals from the control processing circuit (see Column 31, Lines 16-63).

Wilska and Takahara are analogous art because they are from the shared field of handheld liquid crystal display devices. Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize Takahara's active matrix LCD, light

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source, and power management circuit with Wilska's communication device, so as to provide a high quality, energy efficient, liquid crystal image that's easy to see (and read) in both dark and bright light.

Regarding claim 2, Wilska, lacking the express teaching of a light source, does not expressly disclose the use of plural display ports. However, Takahara does disclose the housing [Fig. 21, 201] comprises a first display port [Fig. 21, between the 'Light Emitting Tube Power Supply Circuit' 223 and the 'Light Emitting Tube' 211] and a second display port [Fig. 21, between the 'Display Device Drive Circuit' 224 and the 'Display Device' 214] (see Column 31, Lines 16-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use Takahara's dual display port arrangement with Wilska's communication device, so as to properly position Takahara's active matrix LCD and light source such that the displayed image is easy to see (and read) in both dark and bright light.

Regarding claim 3, Takahara further discloses the matrix display [Fig. 21, 214] can be mounted to the housing [Fig. 21, 201] at the first display port [Fig. 21, between the 'Light Emitting Tube Power Supply Circuit' 223 and the 'Light Emitting Tube' 211] or the second display port [Fig. 21, between the 'Display Device Drive Circuit' 224 and the 'Display Device' 214] (see Column 31, Lines 16-63).

Regarding claim 4, Wilska does not expressly disclose the matrix display further comprises an array of transistor circuits formed with single crystal silicon, the array of transistor

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circuits being bonded to an optically transmissive substrate with an adhesive layer. However, Takahara discloses a transistor circuit array [Fig. 18A, 163] formed with single crystal silicon [Fig. 18A, 167c] bonded to an optically transmissive substrate [Fig. 18A, 162] with an adhesive layer [Fig. 18A, 167 a & 167b] (see Column 24, Line 44 - Column 25, Line 59). Therefore, it would have been obvious to an artisan at the time of invention to use Takahara's transistor circuit array as Wilska's LCD so as to reduce extraneous light reflectance.

Regarding claim 5 and 34, Wilska does not expressly disclose a color sequential display circuit. However, Takahara discloses a color sequential display circuit (see Fig. 15; Column 23, Lines 12-37). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's color sequential display circuit with Wilska's communication device so as to provide a high quality color liquid crystal image.

Regarding claims 6 and 28, Wilska does not expressly disclose the display is a color sequential display system and the light source is an LED backlight. However, Takahara discloses the active matrix liquid crystal display is a color sequential display system (see Fig. 15; Column 23, Lines 12-37) and the light source is an LED backlight [Fig. 21, 211] (see Column 30, Lines 1-18). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's color sequential display circuit and LED backlight with Wilska's communication device so as to provide a high quality color liquid crystal image that's easy to see (and read) even in the dark.

Regarding claim 7, Wilska does not expressly disclose a timing circuit. However, Takahara discloses a timing circuit (see Column 6, Line 52 - Column 7, Line 12). Therefore, it would have been obvious to an artisan at the time of invention to use Takahara's timing circuit with Wilska's LCD so as to regulate driving-signal flow to the display.

Regarding claims 8 and 31, Wilska discloses a battery [Fig. 3; 3] carried by the housing (see Page 3; Paragraph 8).

Regarding claim 9, Wilska does not expressly disclose an LED light source that is optically coupled to the display and a lens that magnifies the image presented on the display. However, Takahara discloses an LED light source [Fig. 21, 211] (see Column 30, Lines 1-18) optically coupled to a display [Fig. 21, 214] and a lens [Fig. 21, 216] that magnifies an image on the display (see Column 28, Lines 30-49). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's LED light source and magnifying lens assembly with Wilska's communication device, so as to provide a high quality liquid crystal image that's easy to see (and read) in both dark and bright light.

Regarding claims 10 and 27, Wilska does not expressly disclose using an LED light source as a backlight. However, Takahara discloses using an LED light source [Fig. 21, 211] as a backlight (see Column 30, Lines 1-18). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's LED backlight with

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Wilska's communication device so as to provide a high quality color liquid crystal image that's easy to see (and read) even in the dark.

Regarding claim 11, Wilska does not expressly disclose a side illumination device. However, Takahara discloses a side illumination device [Fig. 21, 211] (see Column 28, Lines 30-49 and Column 30, Lines 1-18). Thus, it would have been obvious to a person of ordinary skill in the art, at the time of the invention, to utilize Takahara's side illumination device with Wilska's LCD, so as to provide a display that's easy to see (and read) in the dark.

Regarding claims 12, 25 and 39, these claims are rejected by the reasoning applied in the above rejection of claim 9; furthermore, Wilska discloses a display subhousing, wherein the display subhousing can be moved from a storage position to an operating position (see Figures 7-9; Page 10, Paragraph 3).

Regarding claim 13, Wilska discloses a lens is moved from within the housing in the storage position and is viewable in the operating position (see Figures 7-9; Page 10, Paragraph 3).

Regarding claim 14, Wilska discloses the display subhousing rotates relative to the housing between the storage position and the operating position (see Figures 7-9; Page 10, Paragraph 3).



Regarding claim 15, Wilska discloses the display subhousing translates relative to the housing between the storage position and the operating position (see Figures 7-9; Page 10, Paragraph 3).

Regarding claim 16, Wilska discloses the display both rotates and moves translationally relative to the housing between a storage position and an operating position (see Figures 7-9; Page 10, Paragraph 3).

Regarding claim 17, Wilska discloses a display subhousing module, wherein the display subhousing is detachable from the housing (see Figure 7; Page 10, Paragraph 3).

Regarding claim 18, Wilska, lacking the express teaching of a light source, does not expressly disclose the use of plural display ports. However, Takahara does disclose a first display module port [Fig. 21, between the 'Light Emitting Tube Power Supply Circuit' 223 and the 'Light Emitting Tube' 211] and a second display module port [Fig. 21, between the 'Display Device Drive Circuit' 224 and the 'Display Device' 214], each port being adapted to couple with the display subhousing [Fig. 21, 201] both electrically and physically (see Column 31, Lines 16-63). Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use Takahara's dual display port arrangement with Wilska's communication device, so as to properly position Takahara's active matrix LCD and light source such that the displayed image is easy to see (and read) in both dark and bright light.

Regarding claims 19, 26, 32 and 40, Wilska discloses a camera [Fig. 3; 15, 16] (see Page 4, Paragraph 5).

Regarding claims 20 and 29, Wilska does not expressly disclose an array of at least 640 x 480 pixel electrodes. However, Wilska does disclose providing a resolution greater than 640 x 200 pixels<sup>2</sup> (see Page 4, Paragraph 2). In the event that it is shown that the reference does not disclose the claimed pixel range with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the number of pixels to provide properties such as a precise display image resolution of at least 640 x 480 pixel electrodes, and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claim 21, this claim is rejected by the reasoning applied in the above rejection of claim 1; furthermore, Wilska discloses a docking system for a telephone [Fig. 3; 17] comprising: a hand held housing [Fig. 1; 1] (see Page 5, Paragraph 3) having a plurality of control elements [Fig. 3; 10 & 11] (see Page 4, Paragraph 3) and a connection port [Fig. 3; 8] (see Page 5, Paragraph 3) that links a control processing circuit [Fig. 3; 2] (see Page 3, Paragraph 9) within the housing to a telephone [Fig. 3; 17] attachable to the housing (see Page 5, Paragraph 3); a liquid crystal display [Fig. 1; 9] mounted to the housing and connected to the control processing circuit (see Page 4, Paragraph 2), the display receiving display data from the circuit (see Page 3, Paragraph 9); and a battery [Fig. 3; 3] in the housing that provides power to the

device (see Page 3, Paragraph 8). Wilska does not expressly disclose an active matrix LCD, a light source, or a power management circuit.

However, Takahara does disclose an active matrix liquid crystal display [Fig. 21, 214] (see Column 33, Lines 22-28), a light source [Fig. 21, 211] mounted in a display housing [Fig. 21, 201] that illuminates the image presented on the liquid crystal display (see Column 28, Lines 30-49), and a power management circuit [Fig. 22, 223] that lowers the power consumption of a control processing circuit [Fig. 22, the combined circuitry of 211, 214 & 221-225 and the 'variable resistor'] after the image is illuminated until display data [Fig. 22, 'Video Signal'] for the next image from the control processing circuit is ready to be presented to the matrix display, the power consumption of the control processing circuit being lowered between sequentially generated display data, the power management circuit arranged for receiving control signals [i.e. pulse width variable signals from the 'variable resistor'] for lowering the power consumption, the control signals resulting from signals from the control processing circuit (see Column 31, Lines 16-63).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize Takahara's active matrix LCD, light source, and power management circuit with Wilska's communication device, so as to provide a high quality, energy efficient, liquid crystal image that's easy to see (and read) in both dark and bright light.

Regarding claims 22 and 36, Wilska discloses the connection port [Fig. 3; 8] electrically connects the control processing circuit [Fig. 3; 2] to the telephone [Fig. 3; 17] attached to the housing [Fig. 1; 1] (see Page 5, Paragraph 3).

Regarding claims 23 and 37, Wilska does not expressly disclose the system has both a low resolution alphanumeric display and a high resolution display. However, Wilska does disclose providing a resolution of  $640 \times 200$  pixels<sup>2</sup> and greater (see Page 4, Paragraph 2). In the event that it is shown that the reference does not disclose the claimed pixel range with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the display resolution to provide properties such as a precise display image resolution of  $640 \times 200$  pixels<sup>2</sup> and greater, and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 24 and 38, Wilska discloses the control processing circuit mounted in the housing is a central processing unit [Fig. 3; 4] (see Page 4, Paragraph 9).

Regarding claim 30, this claim is rejected by the reasoning applied in the above rejection of claim 1; furthermore, Wilska discloses a method of displaying an image on a docking system in conjunction with a wireless telephone [Fig. 3; 17], comprising linking an external port [Fig. 3; at 17] of the telephone with a connection port [Fig. 3; 8] of a docking station of the docking system to dock the telephone with the docking station and to provide a communication link between the telephone and the docking station, the telephone having a transceiver capable of receiving audio and image data (see Page 5, Paragraph 3); and operating a control processing circuit [Fig. 3; 2] (see Page 3, Paragraph 9) of the docking station, the control processing circuit being connected to the transceiver and a matrix liquid crystal display [Fig. 1; 9] of the docking

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station through the communication link, the operating generating an image on the display (see Page 4, Paragraph 2). Wilska does not expressly disclose an active matrix LCD, illuminating the image presented on the display, or operating a power management circuit.

However, Takahara does disclose an active matrix liquid crystal display [Fig. 21, 214] (see Column 33, Lines 22-28), a light source [Fig. 21, 211] mounted in a display housing [Fig. 21, 201] that illuminates the image presented on the liquid crystal display (see Column 28, Lines 30-49), and a power management circuit [Fig. 22, 223] that lowers the power consumption of a control processing circuit [Fig. 22, the combined circuitry of 211, 214 & 221-225 and the 'variable resistor'] after the image is illuminated until display data [Fig. 22, 'Video Signal'] for the next image from the control processing circuit is ready to be presented to the matrix display, the power consumption of the control processing circuit being lowered between sequentially generated display data, the power management circuit arranged for receiving control signals [i.e. pulse width variable signals from the 'variable resistor'] for lowering the power consumption, the control signals resulting from signals from the control processing circuit (see Column 31, Lines 16-63).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize Takahara's active matrix LCD, light source, and power management circuit with Wilska's communication device, so as to provide a high quality, energy efficient, liquid crystal image that's easy to see (and read) in both dark and bright light.

Regarding claim 33, Wilska discloses selecting whether the image from the camera is seen on the display, transmitted to remote location, or both (see Figures 1-3; Page 5, Paragraph 1).

Regarding claim 35, this claim is rejected by the reasoning applied in the above rejection of claim 1; furthermore, Wilska discloses a docking system for a telephone [Fig. 3; 17] comprising: a hand held housing [Fig. 1; 1] (see Page 5, Paragraph 3) having a plurality of control elements [Fig. 3; 10 & 11] (see Page 4, Paragraph 3) and a connection port [Fig. 3; 8] (see Page 5, Paragraph 3) that links a control processing circuit [Fig. 3; 2] (see Page 3, Paragraph 9) within the housing to a telephone attachable to the housing; a liquid crystal display [Fig. 1; 9] mounted to the housing and connected to the control processing circuit (see Page 4, Paragraph 2), the display receiving display data from the circuit (see Page 3, Paragraph 9); and a battery [Fig. 3; 3] in the housing that provides power to the display and the light source (see Page 3, Paragraph 8). Wilska does not expressly disclose a color sequential active matrix LCD, a light emitting diode within the hand held housing that illuminates the display, or a power management circuit.

However, Takahara does disclose an active matrix liquid crystal display [Fig. 21, 214] (see Column 33, Lines 22-28) is a color sequential display system (see Fig. 15; Column 23, Lines 12-37), a light source [Fig. 21, 211] wherein the light source is an LED backlight [Fig. 21, 211] (see Column 30, Lines 1-18) mounted in a display housing [Fig. 21, 201] that illuminates the image presented on the liquid crystal display (see Column 28, Lines 30-49), and a power management circuit [Fig. 22, 223] that lowers the power consumption of a control processing

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circuit [Fig. 22, the combined circuitry of 211, 214 & 221-225 and the 'variable resistor'] after the image is illuminated until display data [Fig. 22, 'Video Signal'] for the next image from the control processing circuit is ready to be presented to the matrix display, the power consumption of the control processing circuit being lowered between sequentially generated display data, the power management circuit arranged for receiving control signals [i.e. pulse width variable signals from the 'variable resistor'] for lowering the power consumption, the control signals resulting from signals from the control processing circuit (see Column 31, Lines 16-63).

Thus, it would have been obvious to a person of ordinary skill in the art at the time of the invention to utilize Takahara's color sequential display circuit, LED backlight, and power management circuit with Wilska's communication device, so as to provide a high quality, energy efficient, color liquid crystal image that's easy to see (and read) in both dark and bright light.

Regarding claims 41-43, Wilska discloses an array of at least 75,000 pixel electrodes (see Page 4, Paragraph 2). Wilska does not expressly disclose the LCD having an active area of less than  $158\text{mm}^2$ . However, Wilska's does disclose variable LCD dimensions (see Page 4, Paragraph 2). In the event that it is shown that the reference does not disclose the claimed active area size with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the active area size to provide properties such as an active area of less than  $158\text{mm}^2$  so as to conserve overall system size and weight, and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claim 44, this claim is rejected under the reasoning applied in the above rejection of claims 41-43; furthermore while Wilska does not expressly disclose an array of at least 640 x 480 pixel electrodes, Wilska does disclose providing a resolution greater than 640 x 200 pixels<sup>2</sup> (see Page 4, Paragraph 2). In the event that it is shown that the reference does not disclose the claimed pixel range with sufficient specificity, it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the number of pixels to provide properties such as a precise display image resolution of at least 640 x 480 pixel electrodes, and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicants are advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

### ***Response to Arguments***

5. Applicants' arguments submitted in the '*Amendment After Final Rejection Under 37 C.F.R. § 1.116*' (filed on 1 March 2006) have been fully considered but they are not persuasive. The applicants contend the cited prior art of *Takahara et al* (US 5,436,635 A),



*"modulates the anode voltage to the light emitting tube 211 with a pulse signal, which cycles at 60 Hz to lower the power consumption of the light emitting tube 211, and where the pulse width is varied by manually rotating a variable resistor on the camera (Col. 31, lines 38-40). By varying the pulse width, the quantity of emitted light can be varied proportionately. Using a 50% pulse width, the power consumption of the light emitting tube is said to be reduced to 0.25 W. Adding in the power consumption of the LCD (0.1 W) brings the power to slightly greater than 0.3 W. (Col. 31, 1. 62.) Accordingly, Claims 1-44, as amended, are not obvious in view of Wilska and Takahara, since neither reference, alone or in combination, teaches or suggests a 'power management circuit arranged for receiving control signals for lowering the power consumption, the control signals resulting from signals from the control processing circuit' " (see Page 10 of the 'Amendment After Final Rejection Under 37 C.F.R. § 1.116' filed on 1 March 2006).*

However, the examiner respectfully disagrees. The examiner respectfully submits that the instant application broadly describes the control processing circuit as merely *"receiving image data"* and *"generating display data based on image data"* (see claim 1, lines 4-5). Moreover, a circuit is commonly defined as *a closed path capable of being followed by an electric current -- or in other words, a configuration of electrically connected devices*. As clearly indicated by Takahara's Figure 22, the light source [211], display device [214], sensor [221], battery [222], power supply circuit [223], display device drive circuit [224], reproduction circuit [225], and variable resistor (which is not illustrated) have all been configured as a group of electrically connected devices forming a closed electrical path. Each above listed device is not electrically isolated from the others. On the contrary, each device [211, 214 & 221-225] is

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electrically connected with the others, so as to form a single combined *display control processing circuit* -- receiving image data (i.e. the "video signal") and generating display data based on that same image data (see Column 31, Lines 16-63).

In this manner, as Takahara teaches reducing the power consumption of the light source (which the applicants themselves also freely admit on page 2 of paper no. 31, submitted 26 April 2004), so too Takahara inherently discloses power consumption reduction of the overall combined control processing circuit.

The applicants take the position that Takahara's implementation of a user adjustable variable resistor to alter pulse width signals controlling the quantity of light emitted from the display's backlight precludes teaching a "*power management circuit arranged for receiving control signals for lowering the power consumption, the control signals resulting from signals from the control processing circuit.*" However, the examiner respectfully disagrees. Takahara clearly does disclose a power management circuit [Fig. 22, 223] arranged for receiving control signals [i.e. pulse width variable signals from the 'variable resistor'] for lowering the power consumption, the control signals resulting from signals from a control processing circuit [Fig. 22, the combined circuitry of 211, 214 & 221-225 and the 'variable resistor'] (see Column 31, Lines 16-63). If the applicants continue to feel their invention reduces power consumption differently than Takahara's device, the applicants are respectfully encouraged to incorporate such distinctive subject matter into the pending claim language.


By such reasoning, rejection of the claims is deemed proper, necessary, and thereby maintained at this time.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



J.P.

7 July 2006